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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,936	12/18/2001	Andrew Pike	P/61767-PCT	5990

7590 12/17/2003

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EXAMINER	
HANDY, DWAYNE K	

ART UNIT	PAPER NUMBER
1743	

DATE MAILED: 12/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/914,936	PIKE, ANDREW	
	Examiner	Art Unit	
	Dwayne K Handy	1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspond nce address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 27-50 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 27-50 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 12/18/2001 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 27, 29, 31-33, 42, 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Schuldt (5,025,653). Schuldt teaches a gas detection system for the detection of gases in which a central electronic evaluation device is connected to a plurality of measuring heads. The system is best shown in Figure 1 and described in columns 5-7. As shown in Figure 1, the system contains different measuring heads (12a-12i) connected to a main computing unit for evaluating the signal from the measuring heads. In column 7, lines 30-48, Schuldt discloses housing elements for the sensors and an embodiment with 10 different sensor types.

3. Claims 27-31, 33-38, 40, 41, 43-48 and 50 are rejected under 35 U.S.C. 102(e) as being anticipated by Schatzmann et al. (5,832,411). Schatzmann teaches an automated sensor network for the real time monitoring of compounds in a fluid. The

network is comprised of a plurality of sensor units distributed over an area. The sensor units include arrays that respond to the presence of compounds in a fluid and then communicate with a central monitoring unit for identifying the compounds. The embodiments most relevant to the instant claims are shown in Figures 1 and 2 and described in detail in columns 3, 4, 7 and 8. As described in columns 3 and 4, Figure 1 shows the overall system (10) with the plurality of sensor units (12), with arrays (18), connected to the monitoring unit (14) through a network (16) such as hard wired, RF, microwave or optical. The sensor units can be designed for the detection of VOC's (column 4, lines 36-49) and may also include environmental sensors for humidity measurements (col. 3, line 63). Figure 2 shows an embodiment with active sampling mechanisms for sampling the compounds. This sampling mechanism is described in column 7, lines 24-25-67. Schatzmann describes the processor – including display and storage means - in column 6, lines 37-67 and teaches using the processor to control sampling in column 8, lines 44-56. The use of the network to detect leaks around a specific valve or actuator is discloses in column 10, lines 18-35. The Examiner considers this to be taking the samples "locally". In Figure 5, a monitoring system is shown with sensor units152 distributed throughout an industrial area for monitoring VOC's. The Examiner considers this embodiment as taking the samples "remotely". In addition, the system shown in Figure 5 controls the painting process in response to signals received from the sensors (column 11).

4. Claims 27, 29, 31-36, 39-43, 46 are rejected under 35 U.S.C. 102(e) as being anticipated by Sunshine et al. (6,422,061). Sunshine shows a system for detecting analytes and transmitting sensory data over a computer network. The system is comprised of a series of individual sensor units – called "electronic noses" or "e-noses" - connected by a computer network that stores as well as processes the data from the sensor units. The individual sensor units from the system are shown in Figures 2A-11. An embodiment of particular relevance to the instant claims is shown in Figure 5. The units are comprised of a housing unit with a probe or wand through which a sample enters and an exit port through which the sample exits the unit. Inside the unit is an array of sensors. The sensor arrays are described in columns 11 and 12 and include a wide variety of technology types which may be of a preferred type (SAW) or combinations of various types (column 12, lines 26-39). Processors for the system are described in columns 15 and 16 and include computers with memory and display devices. The plurality of e-noses which communicate with each other are shown in a general representation in Figure 18. Sunshine teaches process control usage in column 26, lines 38-55.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sunshine et al. (6,422,061). Sunshine, as described above in paragraph 4, teaches every element of claim 49 except for an identification number included with the sensory data. It would have been obvious to one of ordinary skill in the art, however, to provide the data with an identification number. One would provide a numerical label in order to be able to later retrieve the sensor data quickly from data storage. This would improve processing time.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Klimcak et al. (5,610,393), Jaduszliwer et al. (5,674,751), Luo et al. (6,051,437) and Carter et al. (6,328,932) teach optical probe sensor networks. Drzewiecki (6,286,360) teaches a method and apparatus for analyzing gas mixtures in a flow stream. Goodman et al. (6,627,154) shows an analyte detection chip. Lewis (6,170,318) teaches methods of using sensors for fluid detection. Sunshine et al.

(6,418,783) teach a handheld sensing apparatus for sensing the presence and concentration of vapors. Ellison et al. (6,285,912) teach a system for controlling various parameters of a control network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dwayne K Handy whose telephone number is (703)-305-0211. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (703)-308-4037. The fax phone number for the organization where this application or proceeding is assigned is (703)-872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-0661.

Dkh
December 8, 2003

Jill Warden
Supervisory Patent Examiner
Technology Center 1700